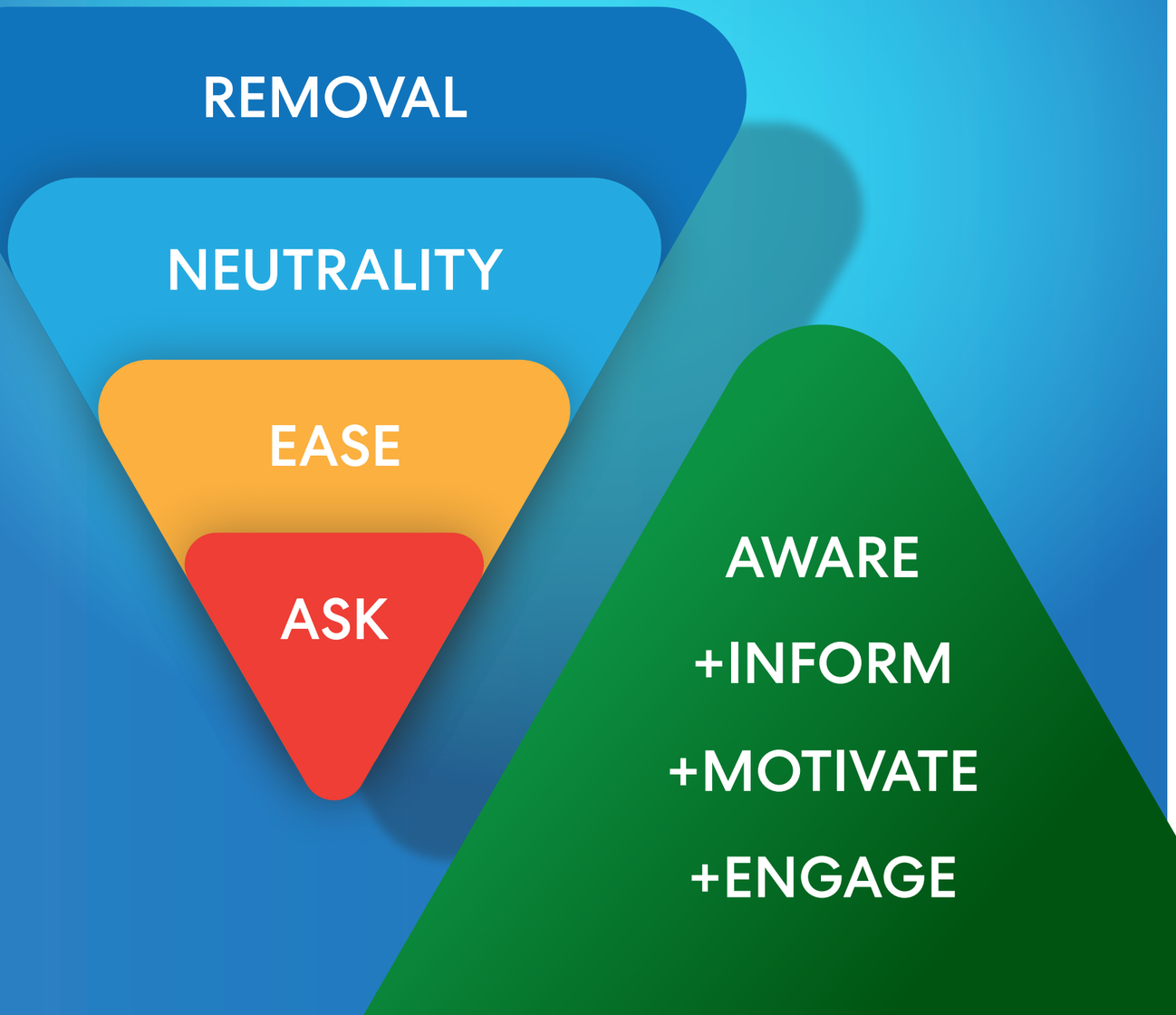
CIWM

# THE BEHAVIOUR CHANGE HIERARCHY

mobius wasteaware

The aim of the Behaviour Change Hierarchy is to help those planning services and/or other interventions to think about the likely impact of their design in terms of achieving behaviour change. It has emerged from the field of municipal solid waste management (MSWM) where, since the early 2000s, there has been a need to move towards circular economies requiring large scale behaviour change at local and national levels. However, the principles set out here can be applied to other scenarios and other sectors that seek to change behaviours including wider environmental issues, transport, energy and healthcare.




The Behaviour Change Hierarchy has been 30 years in the making. It is a concept drawn from real-world, front-line experience of developing communications to support new waste and recycling services and waste sector reforms around the world. With such a body of work to draw from, it was possible to look critically at the influencing factors that contributed to successful outcomes as well as the reasons for less successful results. What emerged was the ability to categorise services and interventions into two primary groups:

**User-orientated services:**

- Services and interventions that give priority to the end user in how they are designed and delivered.
- Supporting communications are weighted towards motivation and planned into the process early.
- These services achieve the highest level of performance.

**Operator-orientated services:**

- Services and interventions that give priority to operator needs in how they are designed and delivered.
- Supporting communications are weighted towards information and are often reactionary.
- These services achieve lower levels of performance compared to user-oriented services..

In waste management, the term ‘behaviour change’ has become synonymous with communication to the point where the two are often seen as one and the same. Whilst communicating is a critical component of services and interventions, particularly where circular economy principles are being adopted, it rarely results in behaviour change when deployed in isolation.

It is appropriate to consider behaviour change as a key operational objective; increasing recycling, minimising waste, reducing the use of single use plastic - all are examples of the need to change behaviour through a combination of policy, services and communications.

Service and intervention design are influenced by a great many factors, with near infinite options of permutation. This often leads to designing waste and recycling services that suit the technical and operational needs of the implementing institution relying on communications to encourage active participation (or acceptance) amongst users. But because operational requirements do not always consider the service-user experience, the level of communication required to achieve behaviour change at scale can be unaffordable. This can lead to services under-performing.

The Behaviour Change Hierarchy examines the primary strategic options in terms of service design. It is intended to help inform the choices made by policy and decision makers in determining the most appropriate approach to achieve the desired outcome, visualising the required level of communications needed to support a specific strategic choice. It places the strategic options in order of descending effectiveness in stimulating a change. The further down this list you go, the greater the need for (and thus investment in) communication is required to compensate for the reduction in effectiveness of each. Applying this model to operational planning will help you to consider whether your operational choices will be sufficiently supported with the required level of communications.

**Stephen Bates**
**Chair: Strategic Experts Group (Behaviour Change) CIWM**

The Behaviour Change Hierarchy has been conceptualised and lead-authored by Stephen Bates with assistance from Andrew Whiteman at Wasteaware and published by The Mobius Agency and CIWM Behaviour Change Strategic Expert Group. It is open-source and you are welcome and encouraged to reference any part of it in your own reports, articles and presentations. When doing so please use the reference: **'The Behaviour Change Hierarchy, Stephen Bates and CIWM 2024'.** Please note that this applies only to text and diagrams. Photographs must not be copied. The Behaviour Change Hierarchy is a working hypothesis. The author welcomes opinion, suggestions and commentary and may be contacted via email at stephen@mobiusagency.org.uk.

**About the Author**

Stephen Bates is a behaviour change communications expert. He began to support UK local authorities in the early 2000s as they started to introduce new kerbside recycling services. He went on to provide campaigns, communication programmes and outreach initiatives for over 160 Local Authorities, many of which being amongst the most effective ever deployed going on to win awards including the prestigious CIWM Best Communication Campaign. Globally, Stephen works in emerging and transitional economic regions supporting donor-funded and internationally financed waste sector reform. He has worked in over 30 countries having developed regional and national waste communication strategies including many in some of the most demanding places on earth. Although strategically focused, Stephen retains capacity in creative development in the fields of graphic design, photography and film-making enabling him the unique capacity to visually articulate the strategies he develops.





# Contents



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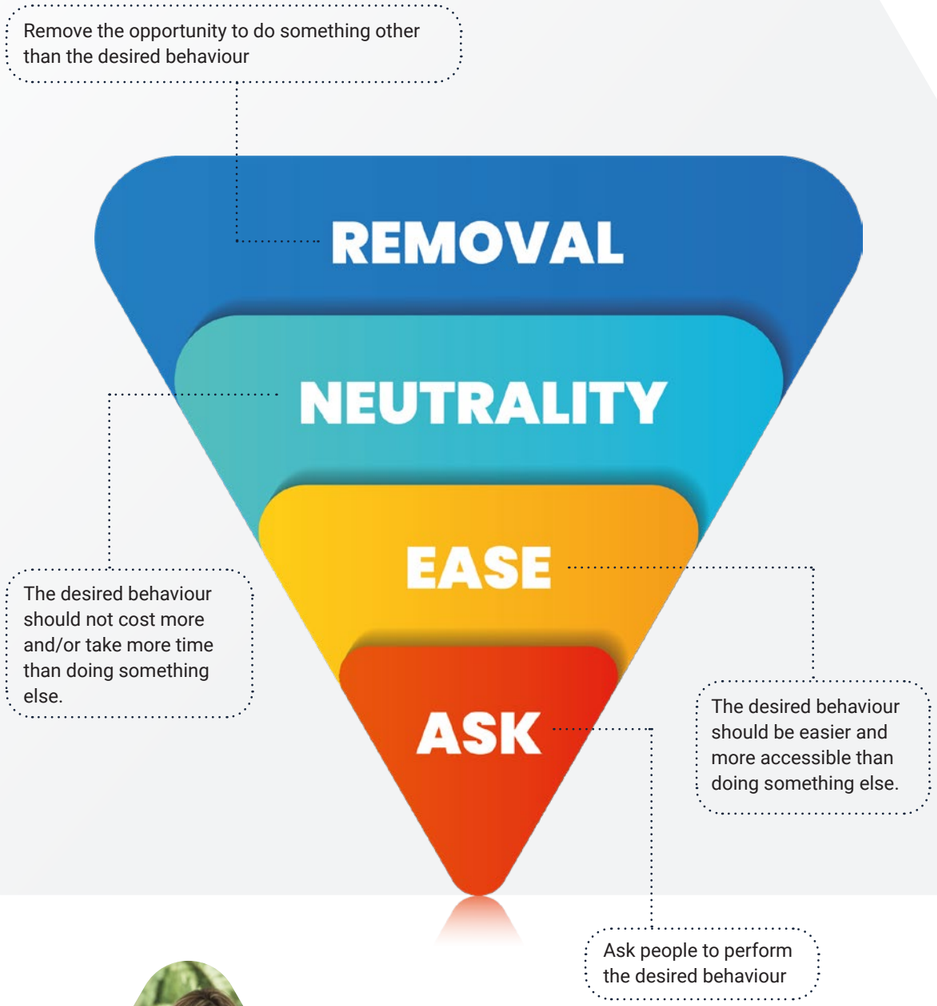



**“Unless a service is optimum for the user, it will rarely achieve its objectives”**



# Introduction to the Behaviour Change Hierarchy

At its core, the Behaviour Change Hierarchy embraces the concept of ‘User Experience’. Often shortened to ‘UX’, User Experience is a term widely used in web development. It describes the systematic considerations applied to the design that determines the experience users have when they visit a website; how easy it is to navigate and find the right content, how accessible it is and the level of simplicity applied to its functions. The better and simpler the experience, the more likely the user will return. The success of Amazon is due in no small part to the UX of the website. It is easy to find what you are looking for and purchasing requires just a single click of a button. Compare that to a website where the user is faced with an impenetrable wall of superfluous information and illogical navigation, where any attempt to engage with the organisation requires the inputting of layers of information and the need to select ‘images containing bicycles to prove you are not a robot’! These types of sites are developed to suit the needs of the developer at the expense of the user. They are developed in the absence of consideration of UX, something often seen in waste management.


The photograph above is taken from a UK national newspaper article in 2011 and shows the range of recycling containers residents in one district in England were then expected to use for their recycling.

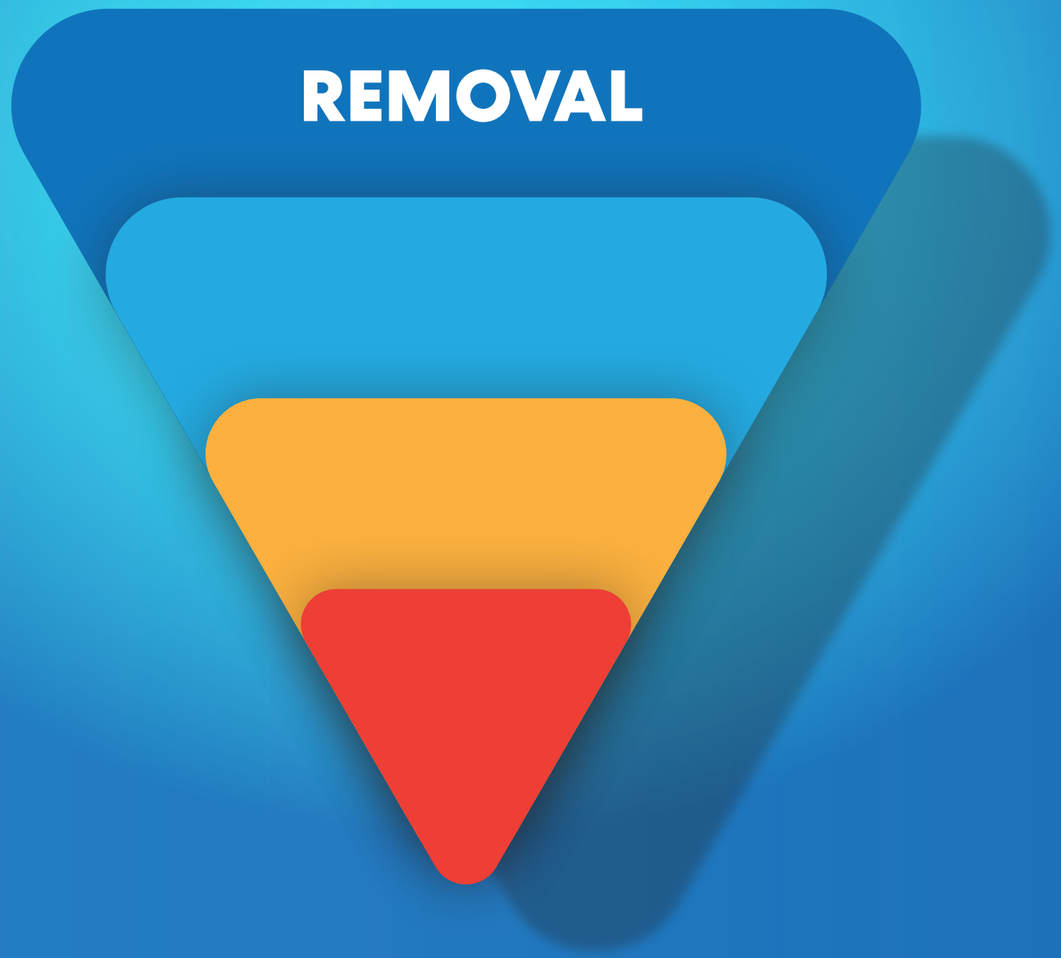
Theoretically, this should have yielded the highest quality recycling and maximum financial value from that material. But it didn’t. Housing stock in the area consists predominantly of Victorian terraces; small houses with small rear gardens (or yards in most cases), limited side access with many front doors opening directly to the street. The storage of these containers took up space that was already scarce. The service itself was complex with different materials collected on different days. It required considerable effort on the part of the householder whilst at the same time inconveniencing them. Despite the opportunity to recycle almost every type of material, the amount of household waste actually recycled rarely exceeded 15%.

Service and intervention design is never arbitrary. A decision, based on a multitude of factors, will have been reached that the provision of nine containers emptied on an alternate collection cycle would be optimum for the local authority and its contracted partners. The problem is that unless a service is also optimum for the user, it will rarely achieve its objectives. This can sometimes be overcome with communication, provided there is sufficient budget. That is why it is imperative to consider the extent and scope of communications at the service design stage to ensure that there is the budget and capacity in place for when it is needed.

For residents, the easiest way of waste being removed from their homes is for it to be collected, all at once, in a single bin with no sorting, as it was in the past. Today, as society moves towards a circular economy, such a system is no longer relevant. Instead, managing the waste from our homes requires sorting materials, multiple containers, and different set-out days - adding complexity to the relatively simple process of our waste being taken away. It is therefore necessary to keep in mind that the further one moves away from that simple, single-bin system, the more complex services become for the user and the more challenging it is to influence the desired behaviours. Service design and communications need to work in harmony to meet this challenge. The Behaviour Change Hierarchy seeks to demonstrate where that harmony can be found.

## The Hierarchy of Strategic Options in Service Design

**Removal:** The most effective strategy to change behaviour is to remove the opportunity to act contrary to requirement.








## Removal

If a toddler is banging away on a toy drum, a parent might ask them to stop. When they fail to stop (which will be the case because, after all, banging on a drum is great fun), those demands become forceful, usually accompanied with threats of admonishment. When requests, demands and threats still yield no response, the ultimate sanction is to take the drum away. The means to behave contrary to requirement has been removed. The same approach is sometimes found in society.

Like many cities around the world, Singapore suffered problems associated with discarded chewing gum. Aside from the unpleasant experience of finding spent gum stuck to lift buttons or under chairs and tables and the added cost of cleaning gum discarded from pavements, the city also suffered a high level of gum-related vandalism with gum being stuck on door sensors of metro trains rendering them inoperable. Campaigns to address these issues had little impact so, in 1992, the government banned the sale of chewing gum and restricted the amount that could be brought into the city by tourists. Problem solved. A shift in behaviour was achieved through the removal of the means to act contrary to the requirement.

Such a strategy may be the most effective but is not without challenge. In the case of Singapore, the manufacturers of chewing gum lobbied the government hard not to impose the ban and retailers also raised concern over the loss of revenue.

Politicians are also keen to avoid being seen as draconian or authoritarian which can inhibit such policies being implemented. Take smoking, for example. Many governments have spent billions raising awareness of the negative health impacts associated with smoking. In many countries, smoking is now banned in public places. Yet still people smoke. If governments were truly committed to addressing the issue, banning the sale of tobacco would be the most effective solution but doing so would see them accused of authoritarianism, even if it was in our best interests. Cynics might also highlight the loss of tax revenue as a motivating force against such a policy and others would question ‘what next?’ Fast-food? Alcohol? Gambling?

Since the rise in awareness of the harm caused by discarded single-use plastic, there have been many calls to ban its use. And replace it with what? Some might suggest glass but what impact would that have on energy consumption or CO2 production? How many more lorries would be required to transport much heavier products around? Banning single-use plastic may well solve one problem but create many more.

Removing the opportunity to behave contrary to requirement may be effective in solving one problem, it can lead to the emergence of others. For this reason, banning things exist at the extreme end of intervention.

# Examples of Removal

## Keeping a cap on it

In 1978, Coca-Cola introduced the world to the two-litre plastic bottle. Unlike glass, it didn't break; it was re-sealable, lightweight and recyclable. By the end of the century, around 53% of all soft drinks were sold in plastic bottles. An unintended consequence of this was the bottle tops. Being small, they were easily discarded as litter (intentionally or otherwise).

In 2019, a new EU directive was ratified that required manufacturers of plastic bottles to tether the caps to bottles under three litres to prevent their full removal from the collar. This directive came into force in the summer of 2024; the intention being to reduce the amount of smaller items of plastic waste entering the environment, ensuring more are recycled together.

This is an example of removing the opportunity for people to behave contrary to requirement. It solves a problem by removing the problem. But, the simplicity of the solution masks considerable complexity and challenge.

Manufacturers were required to invest in new equipment and processes to accommodate the change. Charities that collect bottle tops as part of their fundraising are expecting to see a sharp decline in revenue from this source and early indications are that consumers do not like the new tethered caps.

Time will tell whether these are acceptable trade-offs for the scale and impact the directive has in contributing to solving the problem of plastic waste.

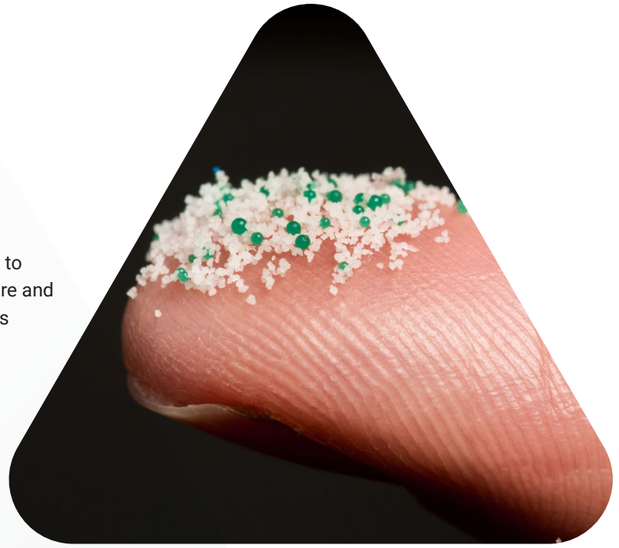
## Binning the bags

Since the early 21st century, there has been a global trend towards the phase-out of lightweight plastic bags. By 2024, 105 countries had banned them outright. 32 have introduced a charge to discourage their use (the UK being one of these).

Banning these bags has made a significant impact in dealing with what was fast becoming a very serious problem. A significant factor in the success of these bans has been that governments have ensured there is an affordable and accessible alternative available to consumers; paper bags or reusable bags (sold at a low price).

## Microbeads

In the early 2000s, microbeads began to appear in a wide range of personal care and cosmetic products. Their function was to aid scrubbing or exfoliating, act as emulsifying agents or just as cheap fillers. Hardly visible to the naked eye, they flow straight from the bathroom drain into the sewer system. Wastewater treatment plants are not designed to filter them so they ended up escaping into the marine environment. Sea animals then absorb or eat microplastics so these particles can then be passed along the marine food chain. Since humans are at the top of this food chain, it stands to reason that we also were ingesting microplastics[1]. Microplastics are not biodegradable and once they enter the environment, they are almost impossible to remove.



Recognising the dangers of microbeads, 19 countries around the world banned their inclusion in cosmetic and personal care products. Many more are set to follow.

## Others

Other examples of beneficial removal include leaded petrol (banned in the UK in 2000) and bituminous coal (banned in 2003).

What is noticeable about these bans is that none of them were introduced accompanied by extensive communication campaigns. Whilst some published content was used, governments mainly relied upon PR, news media and existing channels (such as government websites) to explain and promote the change.

### Key takeaways

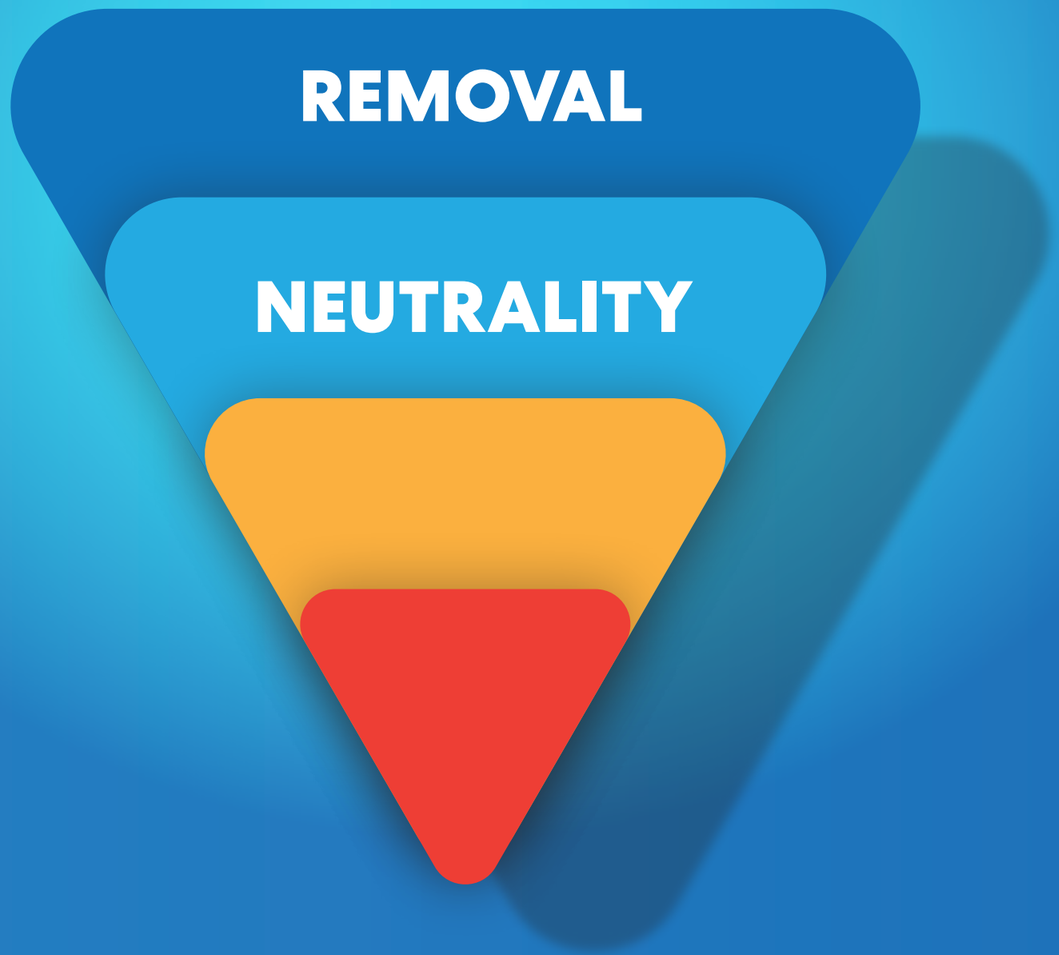
- *Removal of the ability to act contrary to requirement is the most effective strategy requiring the least amount of communication.*
- *The caveat to successful implementation is that there exists accessible and affordable alternatives available to the user.*
- *Push-back can be expected from various quarters - strong resolve is needed to counter this.*
- *Assessment of consequences is needed and recognition that these may not be immediately obvious.*

**"Removing the opportunity to behave contrary to requirement is effective in solving one problem, but it can lead to the emergence of others."**

[1]| *https://www.researchgate.net/publication/8575062_Lost_at_Sea_Where_Is_All_the_Plastic*

## The Hierarchy of Strategic Options in Service Design

**Neutrality:** Behaviour change is very difficult to achieve if the user is expected to pay more or spend more time doing what you want them to do.








## Neutrality

If a new service or intervention is likely to incur the user additional cost and/or take longer, achieving behaviour change will be very challenging requiring very high levels of communication. Conversely, if it saves time and money, behaviour change becomes much easier to achieve and requires less communication.

Whether we like it or not, cost is one of the strongest motivators of behaviour change. If a cost is added to a behaviour we wish to avoid, many people will change to avoid that cost. For example, in the year following the introduction of the London Congestion Charge in 2003, traffic in the congestion charge zone fell by 18%. Congestion reduced by 30% and bus travel increased by 33%[2].

In MSWM, the impact of cost is a little more nuanced but no less prevalent in shaping people's behaviours.

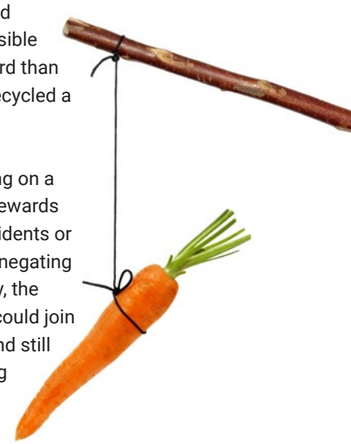
Across many developed countries, the disposal of waste has become a very expensive option. In some parts of the UK, it can cost as much as £200 per tonne to tip waste into a landfill, this being a combination of gate fees and a landfill tax. It was the introduction of the latter that had the benefit of both incentivising alternative means of disposal and the raising of funding to explore and develop household recycling.

For companies and institutions, the financial incentives are of a size sufficient to motivate action. A local disposal authority can save millions through disposal avoidance, pleasing local tax-payers. Companies can save significant amounts too through improved approaches to how they manage their waste, pleasing shareholders and owners. But what about the rest of us? Can financial incentives motivate behaviour change when it comes to waste and recycling?

In 2007, the UK government announced a package of financial support to trial the pay-as-you-throw approach as used in parts of Europe and also in places like South Korea. The cost of waste services is removed from local taxation, recycling is collected for free (or at a much-reduced cost) with householders only paying (or paying a premium) for the waste they send for disposal. Not a single local authority ran a trial.


Still keen to explore the power of financial incentives, the government took a different approach and enabled the trialling of household incentive schemes to encourage greater levels of recycling. This did capture more interest and there followed 10 years of trials across the country with around 50 schemes operating, all funded by central government.

Some schemes relied upon the use of RFID (radio frequency identification) chips installed under the comb of wheelie bins with a chip reader and weighing device installed on the collection vehicle. Households were rewarded based upon the weight of their recycling. The issues here were: a), where the technology did not exist, the cost of retrofitting it was, for many local authorities, prohibitive, and b) because rewards were allocated on a household basis, a family of four that recycled just half of what was actually possible would receive a higher value reward than a neighbour who lived alone yet recycled a greater proportion of their waste.



Other schemes measured recycling on a round-by-round basis dispersing rewards equally amongst participating residents or community organisations. Whilst negating the need for expensive technology, the trade-off meant that households could join the scheme but recycle nothing and still get rewarded, thus disincentivising those that did recycle.

[2]| *https://tfl.gov.uk/info-for/media/press-releases/2023/february/congestion-charge-marks-20-years-of-keeping-london-moving-sustainably*

The main problem is that each household in the UK contributes around £2 per week via Council Tax for waste and recycling services. This is remarkably good value but means that by the time operational costs are considered, there is very little left that can be used to provide any meaningful and lasting motivation.

Such initiatives also run the risk of suggesting that for people to change their behaviour, they need to be paid to do so. This is not always the case. Many people want to see societal and environmental improvements and are willing to 'do their bit' without the expectation of financial reward. There is one possible exception to the rule; Deposit Return Schemes (DRS).

DRS involves placing a redeemable deposit on single-use drinks containers, refundable upon return. The deposit being added to the price of the product at the point of purchase.


The UK has a policy that aims to expand DRS across the country which, at the time of writing, remains a work-in-progress. The aim of the policy is to enhance recycling rates and lessen environmental litter by capturing more on-the-go drinks containers, although it has also been projected to result in a reduction of material collected for recycling at the kerbside. This last point may impact on the economic viability of some waste and recycling contracts that local authorities have with third parties thus demonstrating that solving one problem can create another. And, why the policy remains a work-in-progress!

Whilst added cost creates a barrier to change, it is sometimes unavoidable or makes sense, even if it appears otherwise to the users.

Many local authorities across the UK have introduced chargeable garden waste collection services. There's sound reasoning for this; not every household needs the service. at home. Some don't generate sufficient to warrant collection and some create no garden waste at all. So, it makes little sense to provide a service to everyone that not everyone needs.

By removing garden waste collections from the 'default' service provided to all and offering it to those that do need it, who then pay for the service, makes things fairer for all. It should be an easy 'sell' but implementing this approach is not without challenge that requires a high level of communication to overcome.

**"Whether we like it or not, cost is one of the strongest motivators of behaviour change."**

People resent having something taken away from them that they perceive was previously free (it wasn't free, of course, but the perception amongst many is that their council tax covers the service – why pay extra for something that they already had and/or already paying for?).

People may be disinclined to pay the subscription and instead attempt to dispose of garden waste in the rubbish bin or other means so, garden waste collected may decline.

And for such schemes to be economically viable for local authorities, a minimum number of subscriptions are needed.

Schemes like this need selling to the users. That means communications and a lot of it. For example;

- Communication is needed to support the policy decision to move to chargeable garden waste collection to fend off the negative narrative.
- Communication is needed to promote the service to achieve the break-even level of subscriptions.
- Communication is needed to ensure people use the service correctly.

At the beginning of this section, we mentioned time-neutrality. This can be every bit as compelling as cost neutrality. In some circumstances, time is valued more than money so expecting people to change behaviour when doing so will take them longer is going to be much more difficult than if it takes no more time. If it can take less time, and cost less, then behaviour change becomes easier to achieve.

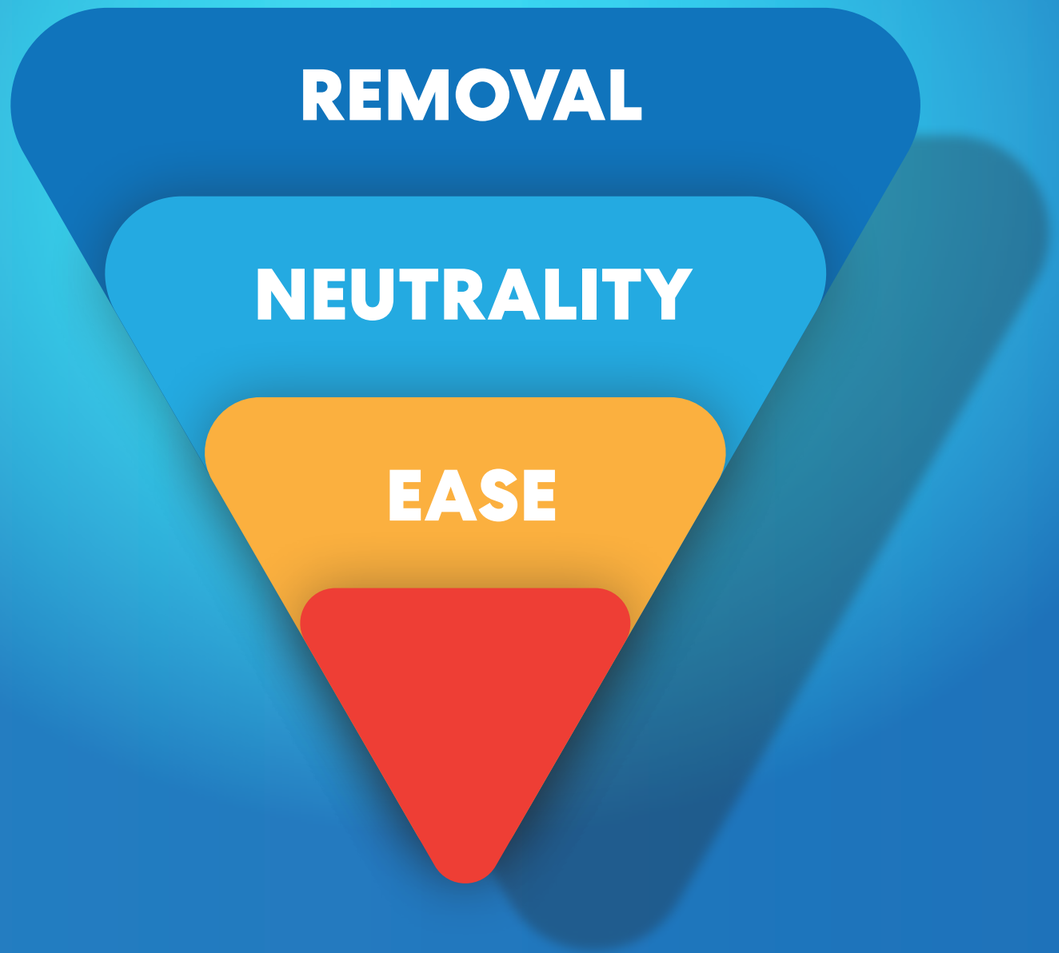
We'll look at the time factor more in the next section.

**Key takeaways**

- *If the desired behaviour is cheaper than the alternative, behaviour change is easier to achieve and requires less communication.*
- *If the desired behaviour costs no more or no less than the alternative, behaviour change is easier to achieve but still requires a reasonable level of communication to stimulate change.*
- *If the desired behaviour costs more than the alternative, behaviour change is harder to achieve and requires more communication.*
- *Time is as valuable as money so the service change or intervention should aim to deliver both time and cost neutrality if behaviour change is to be achieved with minimal communication.*

## The Hierarchy of Strategic Options in Service Design

**Ease:** Human nature dictates that if two options exist to achieve fundamentally the same thing and one is easier and quicker than the other, then it is the easy and quicker option that is taken.








## Ease

Consider an office worker returning from lunch. They have just finished their sandwich and are left with a recyclable wrapper which they would be happy to drop into a recycling bin. The only trouble is that the nearest recycling bin is 20 metres beyond their office building on the other side of the road whereas, right beside them is a litter bin. Which one do you think they are most likely to use?

Many sectors have long capitalised on this natural desire to make life easy. Each year, a few weeks before the renewal date, insurance companies will write to us to remind us that our car, home or travel policy is due to expire. In this same communication they will include a quotation for renewal. This will be accompanied by the helpful offer that in order to activate this renewal, we have to do precisely nothing. Unless we tell them otherwise, they will continue to take payment as they did the previous year and our cover will extend for a further 12 months, seamlessly. Those companies know full well that we could spend time on price comparison websites tapping in our details to obtain alternative quotes. They know that it is likely that we will find some offer at the same level of cover at a cheaper price. They also know that the vast majority of us will not bother; we've much better things to be doing with our time.

People pay a premium to save time; next day delivery, priority boarding, fast-track security, taxi rather than bus.... And where no premium applies, people will tend to embrace the quicker option if one exists. But if there is no option and the only option is one that takes more time to do than it did previously, one needs to consider the effort needed to convince people that the extra time is worthwhile.

Most waste management services that prioritise resource recovery necessarily include added complexity (and thus the requirement of additional effort and time) in the way people use those services compared to the simple process of putting something in a bin. This requires additional effort be applied to communications in order to:

1. Justify the transition to a more complex, time-consuming service.
2. Motivate participation in that service.
3. Ensure that people use the service correctly.

A service change that simplifies how people use it and one that takes less times requires communication for point 3 only.

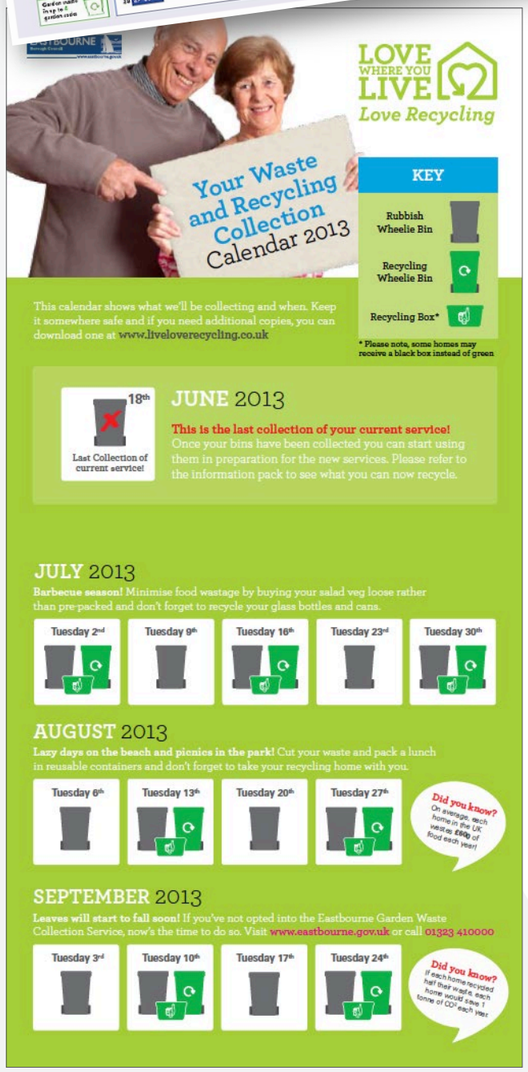
Ease of access to services is also critical in enabling behaviour change, something that has and continues to prove a challenge for flats and other properties where communal recycling is the only option. Here, there are unavoidable trade-offs in terms of balancing access for collection crews, location so as not to hinder residents and access for those residents. This alone requires higher levels of communication compared to 'front-door' services but all too often we find bin stores in poor condition, badly lit and sometimes inaccessible. In cases like this, no amount of communication will be effective.


And finally, there is the need to consider the ease of access to the information needed for people to act. Complex services require complex information to be distilled in a manner accessible and understood by all.

Consider these two collection calendars (shown right), a common piece of communication that's sent to all households at least once a year. The one above contains all the required information but is not easy to find quickly, does not look particularly engaging and its complexity could lead to bins placed out on the wrong days.

Compare that to the one below which conveys the information simply and clearly. It even has the space for behavioural prompts and useful information.

These are an example of something that has been designed with the user as the primary consideration.


## Key takeaways

- *With greater recognition of the user experience in service design, the service becomes easier to use, communications become easier to understand, and behaviour change becomes easier to achieve.*
- *The more complex the service, the greater the need for communications. The reverse of this applies.*
- *If service complexity is necessary, the supporting communications must be designed in a manner that is easily accessible and comprehensible.*

During the Covid pandemic, local authorities introduced a booking system for Recycling Centres in a bid to limit the number of people using them at any one time. Post Covid, many opted to retain this system in a bid to ease congestion on roads approaching the centres and overcrowding inside them. Initially, this was not received well. A great many local community social media pages were awash with criticism of the idea suggesting that it would add complexity, lead to fly-tipping and other predictions of doom. But then something strange happened. People started to support the idea.

They found that the booking system was easy to use. Accessing the Recycling Centre was easier – no more sitting in a line of traffic for half an hour. There was more space once inside the centre making it easier to access the right bins. And with less people on site, it was easier for site staff to help those who needed it.

Complexity had been added by virtue of the need to book a slot. But the trade-off was that everything from therein was easier.
The User Experience had been enhanced.

## The Hierarchy of Strategic Options in Service Design

**Ask:** Sometimes, all you can do is ask that people change their behaviour.






# Ask

When new services are introduced, it's common to see rapid increases in participation and recycling levels. But what happens when, a few months or years later, participation and recycling rates start to decline or when contamination begins to creep upwards?

Recycling will always require additional effort on the part of service users. Although in many parts of the world, the need to separate waste into different material groups has long been embedded into everyday life, it does not take much friction to shift people out of their previously good habits.

Many factors can influence an individual's behaviour regardless of how long that behaviour has been enacted. During the recession following the banking crisis of the late 2000s, many families found themselves in difficult financial circumstances. Many become more concerned with where the next tin of soup was coming from rather than consider what to do with the tin once the contents had been consumed. The impact of the Covid pandemic on our ability to lead a normal life for almost two years changed consumer behaviours significantly.

For example, in Suffolk, glass is not collected as part of the household kerbside recycling service. Despite this, prior to Covid, they achieved very high capture rates through a network of over 1,000 glass recycling banks. During Covid, with hospitality venues closed and most people working from home, glass waste doubled with little of this additional material finding its way to the glass recycling banks. Instead, it was going in the normal rubbish bin or in the household recycling bin, resulting in contamination and leading to an increase in downgraded materials and material rejection.


Even in the absence of extraneous factors, people can sometimes simply forget or slip back into their old ways of doing things.

Since 2010, across much of Europe, recycling levels have stagnated, in some cases, they have fallen and contamination has increased. In 2016, the City of Hull recorded one of the UK's highest levels of recycling contamination; 18%. Nine other Local Authorities reported similar levels.


Campaigns asking people to recycle properly in Hull (left) and Suffolk (below)

Contamination is a blight to many recycling services. Too much of the wrong material can lessen the value of recycling or even render entire loads unrecyclable. In the case of Hull, this equated to an annual cost of over £500k. Apart from unpopular interventions to reduce contamination, such as rejecting contaminated bins at the kerbside or giving out fixed penalty fines, often the only option open to addressing the issue is to communicate what can and cannot be recycled and how.

Even where contamination is not an issue, there is still the risk that participation can slip and recycling levels fall and again, communications must be used to stop this happening and reverse any downward trend.

Asking is pure communication. It's what's needed in the absence of service change and must therefore be properly considered and budgeted for. Addressing declining recycling or increasing contamination cannot be achieved with a few social media posts and an advert on the side of a collection vehicle.

The Suffolk Waste Partnership recognised this in 2022 running a campaign to tackle the decline in glass recycling and contamination. A 12-week campaign comprising out-of-home advertising, radio advertising, paid-for social media and display advertising resulted in glass-recycling levels reaching 4% above pre-pandemic levels so not just solving a problem but improving performance too. A second smaller campaign and other regular communications have helped to maintain this level since. The latter point demonstrates that communications isn't a one-off activity, it is needed constantly to keep behaviours where they need to be.





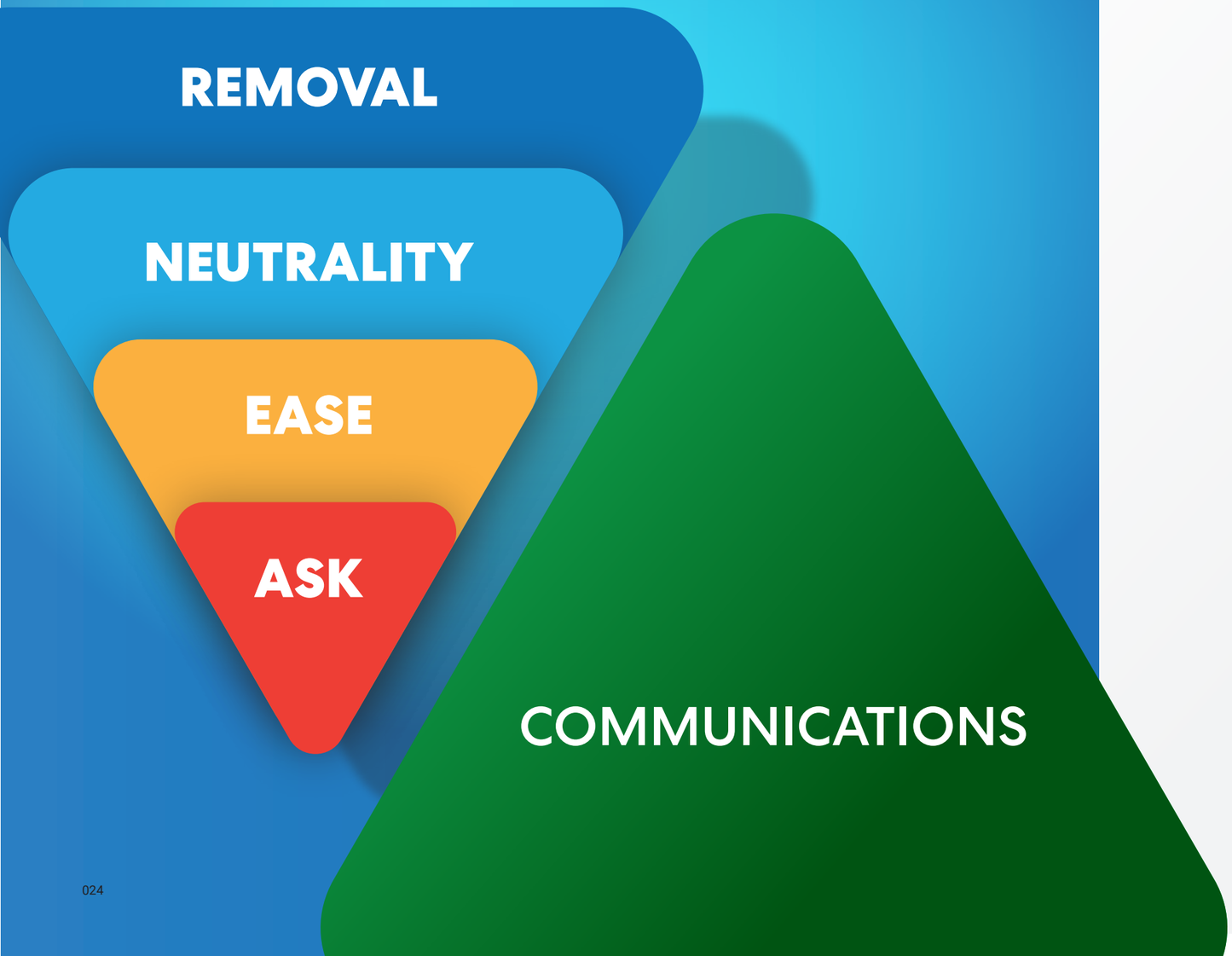
### Key takeaways

- *There are no guarantees that good behaviours will be maintained, any number of factors can cause people to slip.*
- *When all that you can do is ask, all that is available to you is communications. Therefore, this strategy requires the greatest level of communication.*
- *Communication is required constantly to maintain the required behaviour.*




When people do respond to a request to change their behaviour, it is important to recognise this. A simple note of thanks can be very effective in maintaining behaviour levels once reached. Shown here is a bin tag thanking residents for getting recycling right in Hull.

# The Impact of Strategic Choice on Communications








## The Impact of Strategic Choice on Communications

Strategic choice is not a simple case of picking one you like the look of. As we have discussed, service design is influenced by many things. The pursuit of a system that perfectly balances operational need with user expectation remains a largely utopian vision. But this does not have to mean that a strategy lower down the hierarchy should under-perform. There exists the potential for it to perform just as well as those above it. The caveat to achieving this is the need to apply communications to a level that seeks to compensate for the disparity between strategic choice and achieving the desired behaviour in the absence of legislative and/or policy measures.

For example, if it is necessary to increase the cost of a new service then additional commitment is required to convince users that the cost is justified. Or, if new services add a layer of complexity making them less easy to use, then additional commitment to, and investment in, communications is needed to provide clear instructions.

It is therefore critical to recognise the extent of communications needed very early on in the service planning cycle and ensure that sufficient budget and capacity will be available. If there isn't this can severely impact on the performance of the service, leading to economic loss often to a level far greater than the budget needed for the communications in the first place.

There is then the consequential impacts such as negative PR and reputational damage, which themselves incur costs.

Communication has been a key component in MSWM since the very start when new laws were introduced in London in the early 1800s requiring people to place their waste into moveable containers. These new laws were communicated to society by means of direct engagement. Thus, the very first tangible function of organised MSWM was communications and it remains a critical component today. Despite its importance, it rarely forms part of any formal training for waste professionals and the functions and processes are alien to many outside of those who specialise in it. This can lead to poorly specified briefs and under-funded campaigns.

This does not mean that waste professionals must become expert copywriters, ad-planners or graphic designers. There are plenty of service providers highly adept in such skills! But they do their best work in the presence of two things: 1) clients who are informed and appreciative of the need and processes of communication, and 2) sufficient budget to deliver meaningful work that will meet objectives.

On the following page, we begin to explore the degree of communications needed for each strategic choice.


As you travel down the hierarchy of strategic options, the amount and type of communication needed changes and critically, the budget needed increases. This is important to recognise early on. If a strategic decision is made without considering the level of communication required, then there is serious risk that the service will under-perform or fail.

The realities of modern MSWM dictate that the ability to align strategic choice with the required level of communications budget is not always possible. But, it is important to recognise the potential consequences early on. If you are targeting a 60% recycling rate with a complex service and a limited communications budget, then it would be wise to revisit that target. Perhaps 40% might be more realistic. This helps to manage the expectations of political leaders, the public, and other key stakeholders, as well as enabling a more accurate forecast of economic performance.

### Removal

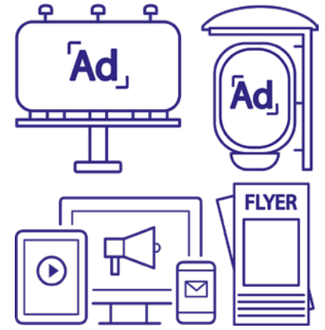
Removal of the means to behave contrary to requirement is most effective strategy to change behaviour and requires the least amount of communication - but some will still be needed. This is because it is necessary to consider the robust opposition of others to your service design and the potential for unintended consequences.


Lightweight Campaign

### Neutrality

If removal is not possible, then communication needs to increase in terms of visibility and its contextual approach. Awareness still needs to be raised but at this level, additional emphasis must be placed on information and motivation. People need to be convinced that the premium is worth paying or the extra time needed is worthwhile.

This brings communications into the realms of campaigns; programmes that run for several weeks or months using a variety of channels to reach the audience.

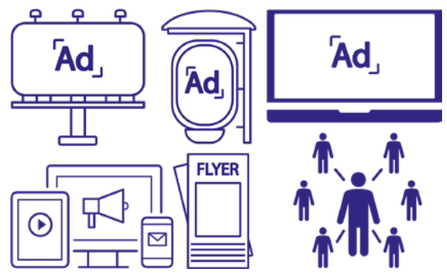



Medium-weight Campaign

### Ask

When all that can be done is to ask people to act, all of the above still applies added to which is the need to engage with the audience one-on-one. This includes activity such as community events and door-knocking. Depending on the region, it may also be appropriate to consider broadcast advertising (TV and Radio). It's also worth noting that campaigns that fall into this category tend to run for longer periods of time.

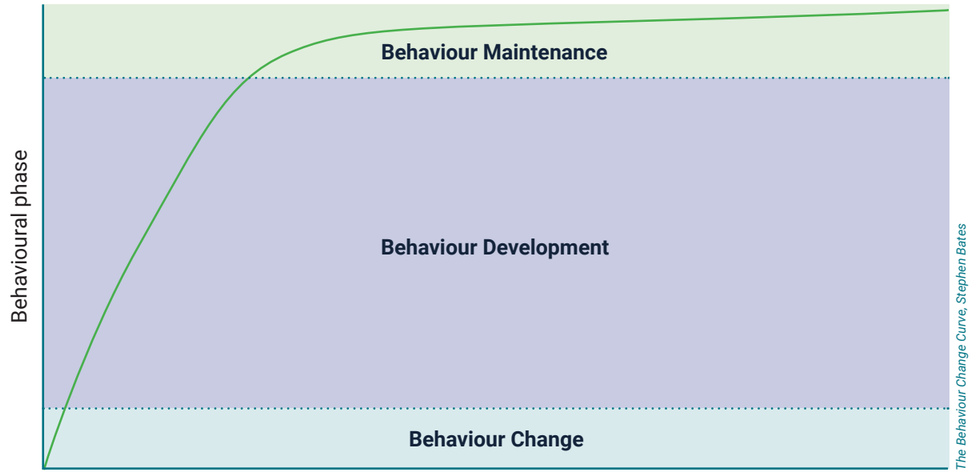
All of this means that when you can only ask people to act, it costs more to do so and longer before you see any tangible outcome.




Heavyweight Campaign

*NB: The channels represented by the icons are representative of the extent and broad mix of media that might apply rather than an absolute indication of those which should be used.*

Annexed to The Hierarchy of Behaviour Change is the Behaviour Change Curve, developed by Stephen Bates as a means to consider where society is on their journey towards achieving the required type and level of behaviour. It's a journey that can be split into three phases as shown in the diagram below.




*The Behaviour Change Curve, Stephen Bates*

**Behaviour change** is the phase. where we see people begin to act; small but tangible, positive shifts in how people deal with their waste. Perhaps they start using a glass recycling bank and pay more attention to what goes in the recycling bin.

**Behaviour development** sees those initial actions evolve and grow, moving ever closer to the target level of behaviour. Once that level is reached, the task is then to maintain that behaviour.

**Behaviour maintenance** It's all too easy to consider that once society has reached this point, it's a case of 'job done!' But it's from here that the slightest slips in behaviour levels can have the greatest impacts so there exists the need to permanently maintain behaviour levels.

Understanding where your audience is on this curve is helpful in considering how best to apply communications. It is often the case that the initial behaviour change phase requires the greatest amount of communication and the greatest spend (Heavyweight Campaign). Once change starts to occur, spend can be reduced, changing the messaging and channels to maintain the upwards trajectory (Medium-weight Campaign) moving to the lightest level of spend to maintain behaviour levels once they have been achieved (Lightweight Campaign).

It is important to pay attention to maintaining behaviour change and avoid the thinking that no further communication is required. Take recycling as an example. If levels have reached, say 50%, that equates to a great deal of material and very good economic gains having been achieved. But if performance slips, only by a few percent, those economic gains could easily turn into economic loss. Addressing that can require the implementation of a Medium (or even Heavy) weight campaign. But if there is not the budget to do this, those loses will only worsen. So its important to keep people motivated and engaged once they've arrived at where you need them to be.

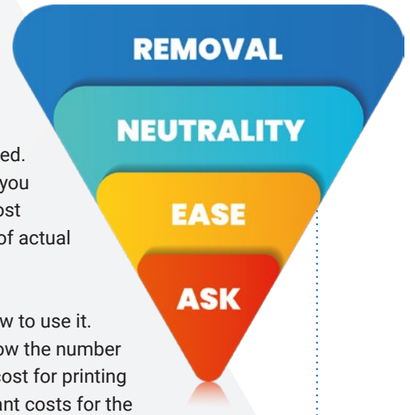
# Budgeting for Communications

So, how much is enough? Unfortunately, it is not an easy question to answer!. There exists no singular calculation, formula, or algorithm to determine how much should be spent on communications. This is because the range of variables that influence communication costs are near infinite meaning, that even indicative budget levels are too broad to offer any meaningful guidance.  A temptation all too often succumbed to is budgets set on an arbitrary or 'best-guess' basis. This runs the risk that insufficient budget is allocated leading to communications failing to work which impacts on service performance and increased costs.

Or budgets are set needlessly high, wasting money (though the latter of these two scenarios is rare).

Determining a suitable communication budget should be done in collaboration with your internal communications department and/or your external service providers (such as an advertising agency). But even here, before those conversations are opened, it is necessary to consider, at the very least, a broad indication of appropriate spend and this section looks at the steps that can be applied to determine this.

## 1. Where you are on the Behaviour Change Hierarchy?




The first step is to consider where on the Behaviour Change Hierarchy the service you need to communicate exists and then determine the level of communications you will need (see pages 26 and 27). This starts to frame the extent of the communications required. So, if you have determined the need for a 'Medium-weight Campaign' you know it will neither be the cheapest campaign but nor will it be the most expensive. It may also be possible to start to gather some indication of actual costs. For example;

If you are introducing a new service, then people will need to know how to use it. This will require information being sent to all households. You will know the number of households that exist and from this, it is possible to calculate the cost for printing and distribution. These are likely to be the amongst the most significant costs for the campaign so establishing what that cost will be puts a useful early marker down, giving you an initial ball-park figure to start with. In other words, you know that the total budget will not be less than this initial figure.

## 2. Assess the direct financial impact

In some cases, it is possible to identify the cost implications of service performance levels which can help to determine a relevant communications budget. A good example of this is with contamination in recycling.

Contamination leads to a downgrading of material that can result in lower material value or even rejection where material is disposed of rather than recycled. In both these cases, the financial impact can be calculated.

If contamination levels are running at 15%, the cost of this (resulting from material downgrading and otherwise avoidable disposal costs) might be around £0.5m per year.

Examining where this issue exists on the Behaviour Change Hierarchy, we find it at the bottom under the category of 'Ask' which requires a heavyweight campaign to support and thus the highest level of budget. You could theoretically spend £0.5m on the communications but even if this resulted in zero contamination, you'd be no better off financially and you also need to think about maintaining that performance in the future. Instead, you could look to commit to, say, £150,000 in year one with £50k in year two. The point here is that you have established a much more meaningful ballpark in terms of budget requirement. This in turn means that you can engage in discussions with relevant departments and external service providers with greater clarity in terms of expectation.


**Oops!** Failure to properly communicate the correct way to use a service will result in the need for remedial measures such as the rejection of bins presented for emptying. This also needs communicating using bin tags (above) or stickers. It is important to consider the cost of dealing with negative PR resulting from people not having their bins emptied, regardless of how just that intervention was.

## 3. Assess the indirect financial impact

All aspects of waste management and behaviours towards waste carry a financial impact or benefit. Some of these are easy to establish; others less so, but this does not mean to say they are any less relevant or useful in helping to determine a communications budget.

The table to the right provides some examples of the potential financial impacts of waste management and behaviour on a scale that starts with 'Focused and Bankable'. These are where outcomes are transparently quantifiable. At the other end are examples where the impacts are 'Broad and Theoretical'. These are where financial impacts exist but are harder to quantify or attribute.

| | | |
|---|---|---|
| **Hard revenue and benefit** | Sale of materials. | Focused and Bankable |
| | Sale of energy. | |
| | Avoided disposal costs. | |
| **Operational economics** | Improved cost efficiency of service operation. | |
| | Reduced energy costs. | |
| **Additional revenue streams** | Monetisable environmental benefits (such as carbon credits). | |
| | Accessing of Grant and Donor Funding. | |
| | Enabling the collection of additional materials leading to additional revenue streams. | |
| **Added value** | Productivity gains in the recycling system. | |
| | Avoided use of virgin materials. | |
| **Social value** | Estimated value of non-monetisable benefits such as avoided pollution, increased public health, job creation and improved livelihoods. | Broad and Theoretical |
| **Institutional reputation** | Avoided cost of defensive PR and the easing of other service developments as a result of positive reputation resulting from effective waste and recycling services. | |




## 4. Channels

'Channel' refers to the means of communication; the media that is used to convey a message; social media, radio advertising, leaflets, and so on.

A final step is to consider the channels that are required. This is determined by the purpose of communications and what it needs to do. It is useful to categorise these into three groups:

- **Must-haves:** The channels required as an absolute minimum to achieve acceptable levels of performance.
- **Good-to-haves:** Additional channels that could boost performance levels and add value to the communication process in terms of the outcomes achieved.
- **Desirable:** Further additional means of communication that whilst not critical, could provide additional layers of benefit to the overall outcome.

As an example, consider a Local Authority introducing a change in its recycling services to residents:

All households will need to be made aware of these changes and be instructed on how to use them. The 'Must-Haves' in this example would likely include a paid-for social media campaign, PR to raise awareness, and instructional literature to provide the information people need sent to all homes.

Whilst this approach would likely yield acceptable levels of participation, the inclusion of – for example – doorstep engagement supported with some public events would boost levels of performance and participation as well as reduce contamination. These are the Good-to-haves.

And whilst things like outdoor and broadcast advertising are not always essential, they can be very effective in driving home key messages and stimulating longer-term and lasting behaviour change. These are the Desirables.

Following the steps set out here, you should arrive at a point where you have a good idea of what is needed and a broad indication of the level of budget required. This will enable you to plan, prepare and procure the services necessary to develop and implement your communications to appropriate levels. However, knowing what budget you need is one thing; having that budget is another and not always possible, regardless of the strength of argument that prevails. Addressing this brings us back, full-circle, to the Behaviour Change Hierarchy.

As we have seen, as you descend through the strategic options in terms of service design, the impact that choice has in terms of performance and participation lessens, so the need for communication increases to achieve the required performance level.

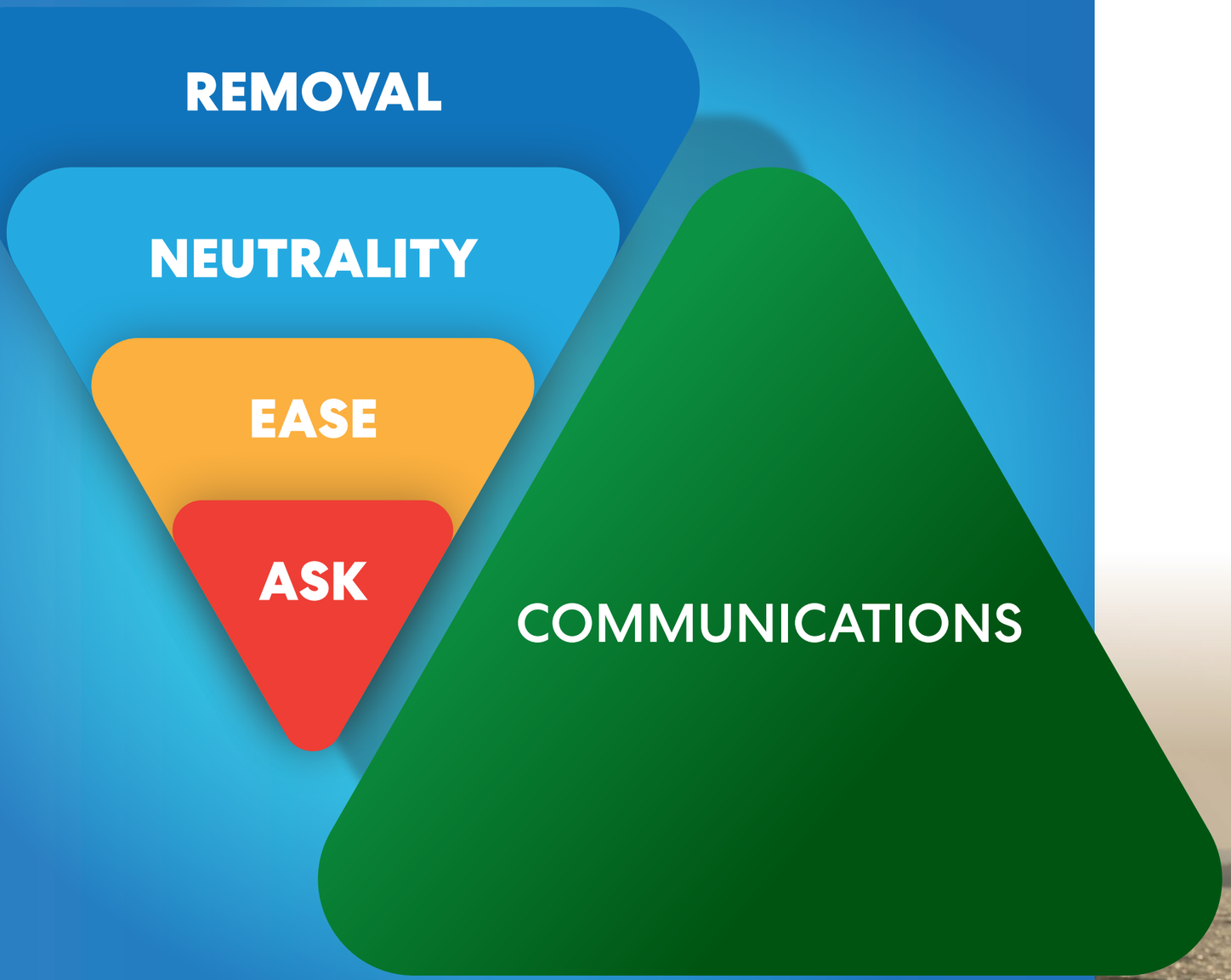
This means that the cost of communications increases too. It would be pointless to introduce (or change) a service without the appropriate level of supportive communications. Doing so would run the risk that participation and performance levels will fail to achieve the minimum requirements causing economic damage, possibly even total failure leading to reputational damage to the institution with overarching responsibility.

By checking where you are on the Behaviour Change Hierarchy you may determine that you have appropriate budget to undertake the work to the required scope giving you the confidence to proceed. You may also determine that you have insufficient budget to achieve the minimum required outcomes. The options here are:

**Review the service**
Review the service specification to see if it can be altered and moved further up the Behaviour Change Hierarchy to a point where budget availability is more closely aligned. If that is not possible:

**Seek additional budget**
Use the Behaviour Change Hierarchy model to justify need, go and seek additional budget.

**If neither of those are possible**
Adjust expectations to levels that are more realistically aligned to the level of communication that will be possible.


## Key Take-aways

There exists a vast array of options for service/intervention design for municipal solid waste management. Regardless of the approach, the success of any service almost always comes down to people putting the right thing in the right place at the right time. And it is for this reason the Behaviour Change Hierarchy places the needs of service users ahead of those of the service providers.

However, it also recognises that in the real-world, many other factors influence service/intervention design - economics, logistics, capacity and more besides. The real-world dictates the need for compromise.

So, when a service/intervention that is focused entirely upon user needs is out of reach, the Behaviour Change Hierarchy demonstrates how communications can be used to narrow the gap. In this sense, we can determine that service design is the enabler of behaviour change. Communications is how users navigate and engage with the service.

In summary, there are six conclusions that can be drawn from the Behaviour Change Hierarchy:

1. Service/intervention design should be considered as part of the behaviour change strategy not just a technical process of determination.

2. The strategic choices made about service/intervention design correlates to the level of communications required. This must be recognised at the design stage to ensure sufficient budget is available.

3. People will have no option but to change behaviour if there is no option for them to do otherwise.

4. It is harder to change behaviour if doing so will cost people more money and/or take more time.

5. More people will change behaviour if it is easier than the alternative.

6. Some people will change their behaviour if you just ask them to – but it will take longer and cost more money.

The Behaviour Change Hierarchy is jointly published by the Chartered Institute of Wastes Management under its Strategic Experts Group (Behaviour Change), The Mobius Agency and Wasteaware. The Chartered Institution of Wastes Management (CIWM) is the leading professional membership organisation for individuals in the sustainability, resources and waste management sector. CIWM represents and supports over 7,200 individuals and 250 Affiliated Organisations across the UK and overseas. **ciwm.co.uk**

mobius

Mobius is a visual communication agency focusing on societal development across environmental development and social care. It exists with the vision to 'Change things for the better; for good' through the use of behaviour change communications, creativity and imagery.
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**wasteaware.org**